DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

File #: 69.28

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-008870 Address: 333 Burma Road Date Inspected: 02-Jul-2009

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Zhi Jiang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** Components

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Hiranch Patel, was present during the times noted above for observations relative to the work being performed.

Bay#2

This QA inspector observed during in process inspection of FCAW welding of Segment weld joint Seg1E-214, Seg2F-006 and Seg2E-214 that welding parameters do not comply with applicable WPS. The welding parameters recorded by this QA inspector are "263 Amps". According to WPS the parameters are allowed up to "182~223Amps. ZPMC removed these welds and re-weld it with correct parameters. See incident report on this date.

Caltrans Quality Assurance Inspector observed on Segment 1AAW and 1AAE, during weld of interior vertical stiffeners by FCAW process ZPMC applied an extra mechanical force on following plates, by the use of mechanical jack.

1AAE- Plate# PL1472A/1472B, X193A, X193B 1AAW-Plate#PL1472A/1472B, X193A, X193B See incident report on this date.

Caltrans Quality Assurance Inspector observed on Segment 1AAE that no interpass cleaning during welding of weld joint # Seg2-001 by SMAW interior. The welder is identified as W#066480 and W#066481. See incident report on this date.

WELDING INSPECTION REPORT

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Caltrans Quality Assurance Inspector observed on Segment 1AAE that no interpass cleaning during welding of weld joint # Seg2-001 by SMAW interior. The welder is identified as W#066480 and W#066481. This QA Inspector generated TL015 Incident report for these indications.

This QA inspector observed the following work in progress:

Bay#2

FCAW welding of weld joint Seg2F-001, Seg2C-002, and Seg2E-214 located on Segment 1AAE. Welder is identified as 058245 (3G). ZPMC QC-CWI is identified as Li Zhi Jiang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

FCAW welding of weld joint Seg2F-006, Seg2C-088, and Seg2E-414 located on Segment 1AAE. Welder is identified as 058245 (3G). ZPMC QC-CWI is identified as Li Zhi Jiang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

FCAW welding of weld joint Seg1E-083, 416, Seg1D-002, 088, and Seg1F-001, 006 located on Segment 1AAW. Welder is identified as 207465 (3G). ZPMC QC-CWI is identified as Li Zhi Jiang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

FCAW welding of weld joint Seg1E-214, 333, Seg1C-001, 088, and Seg1F-022, 026 located on Segment 1AAW. Welder is identified as 045175 (3G). ZPMC QC-CWI is identified as Li Zhi Jiang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

FCAW welding of weld joint Seg2F-026, Seg2D-088, and Seg2E-334 located on Segment 1AAE. Welder is identified as 203871 (3G). ZPMC QC-CWI is identified as Li Zhi Jiang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

SMAW welding of base metal repair on segment 1AAE weld joint Seg2-001. Welder is identified as 066480 and 066481 (4G/4F), grade 485+ grades 345. ZPMC QC-CWI is identified as Li Zhi Jiang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Patel, Hiranch	Quality Assurance Inspector
Reviewed By:	Prue,Erik	QA Reviewer